

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
	:
Michael HERMANN) Group Art Unit: 2872
	:
Application No.: 09/817,797) Examiner: A. Y. Chang
	:
Filed: March 27, 2001) Confirmation No. 8356
	:
For: DEVICE FOR QUANTITATIVE)
ASSESSMENT OF THE ALIGNED	:
POSITION OF TWO MACHINE)
PARTS, WORKPIECES OR THE LIKE :	:

DECLARATION OF ROLAND HÖLZL

I, Roland Hölzl, declare that:

1. I am the same Roland Hölzl that is the inventor of the shaft alignment checking method of U.S. Patent No. 5,026,998 (hereafter, "My Patent"), and am an inventor or co-inventor of the inventions of U.S. Patent Nos. 6,566,871; 6,515,294; 6,476,914; 6,146,000; 5,049,757, and others.

2. I have reviewed a copy of United States Patent Application Publication US 2001/0052983 A1, which I understand corresponds to the above-identified U.S. Patent Application (hereafter, the "Hermann Application") as originally filed. I have reviewed the attached Amendment After Second RCE which I understand contains the claims that presently exist in the application (hereafter, "The Claims") and the appended communication from the Examiner dated November 7, 2006 (hereafter, the "Office Action"). I also have reviewed Lysen et al. U.S. Patent No. 6,337,742 (hereafter, the Lysen Patent) which is the U.S. counterpart of the German Patent

Application DE 38 14 466 that is described in paragraphs [0003] and [0004] of the Hermann Application.

3. Based on my knowledge and experience, those of ordinary skill in the art did not know that the reflectivity of the surface of sensors that were commercially available prior to the March 27, 2001, filing date of the Hermann Application was sufficient to enable them to be usable as either the mirror surfaces 6a of My Patent or in the manner in which the reflectivity of the sensors 110, 120 is used as is described in Hermann Application. To the contrary, at that the time of that the Hermann Application was filed, I and others in the field considered the reflectivity of the sensors to be a problem which had to be minimized or eliminated, for example, by blackening internal surfaces to avoid stray reflections, etc. and I know of no one that considered the reflectivity of the optoelectronic sensors to be a usable feature prior to that discovery by Mr. Michael Hermann, the inventor of the Hermann Application (hereafter, "The Inventor").

4. Based on my knowledge and experience, the statements contained in items 6 & 8-10 of the Office Action, incorrectly reflect the knowledge of one of ordinary skill in the alignment art. Furthermore, based on my knowledge and experience in the alignment art, the Hermann Application adequately discloses how to make and used the invention defined by The Claims and reflects the fact that The Inventor was in possession of the invention recited in The Claims, with respect to which the "known location" recitation found in claims 1 & 3 would be found to be clear and definite by one of ordinary skill in the art as explained further below.

Considering first the “known location” language, it is known to me that it has been standard practice in the shaft alignment field to first determine the distance of at least one of the sensors on one of the shafts from the laser beam on the other of the shafts, e.g., a tape measure, and for this reason all suppliers of alignment devices ship their products with a tape measure and have been doing so for decades, and as stated in the last paragraph of column 4 of the Lysen Patent, “the distance of the position detectors 23 and 25 from the radiation source S is obtained in any manner independently of the measuring device.” Furthermore, it would have been apparent to one of ordinary skill in the alignment art that the primary difference between the device described in the Hermann Application and that described in the Lysen Patent is that the beam splitter 22 of the Lysen Patent is eliminated and the reflectivity of sensor 110 of the Hermann Application is utilized instead, so that all of basic comments contained therein, including those in the first paragraph of column 5 with regard to how “the knowledge of this distance [i.e., the distance between the light source S and the detectors 23 or 25] needed for the calculation can be obtained,” would have been recognized to apply to the invention recited in The Claims. Thus, one of ordinary skill in the art would not be confused by this recitation and would know that the recitations of “a collimated light source ...connected to a first of the two elements at a known location” and “a housing, connected to a second of the two elements at a known location” is referring to this standard practice of determining the distance between the light source and the sensor unit and would know multiple ways of doing so.

Likewise, the recitation that “the first and second two-dimensionally readable optoelectronic sensors are positioned relative to one another at a known location with respect to said housing” would have been recognized as a basic requirement of the device disclosed in the Hermann Patent Application. As noted in the Lysen Patent (see, e.g., second full paragraph of column 3), the position sensors must be aligned in the direction of projection of the beam from the light source, and since the sensors 110, 120 of the Hermann Patent Application are enclosed with the housing 500, this cannot be done without knowing the positional relationship between the housing and the sensors in it. In the design phase of the Hermann device the relative positions of the sensors with respect to the housing and the laser beam are directly determined. Furthermore, that the position of these sensors is known is readily apparent from the reference to the sensor location coordinates IC1; A and IC1; B in paragraph [0017] of the Hermann Patent Application.

Moreover, the statement in paragraph [0026] to the effect that the device of the Hermann Application has is “especially suited” for use in the position detection system of “German Patent Application DE 19733919 and U.S. Patent 6,049,378” is a clear disclosure that techniques for measuring or evaluating the relative position of two elements with respect to each other of the Lysen Patent apply to the invention of the Hermann Application.

5. With regard to the Examiner's positions stated in paragraph 12 of the Office Action, based on my knowledge and experience, the conclusions stated in that paragraph are not supported by the facts as they exist. First, based upon the facts set forth above in paragraph 3 of this Declaration, there is simply no basis for the Examiner's conclusion that it would have been obvious to use the reflective properties of the commercially available optoelectronic sensors in the manner taught by the Hermann Patent Application and in the manner set forth in The Claims. Likewise, while the operation principles of the device of the Hermann Patent Application are the same as in the Lysen Patent (not the device of My Patent which does and cannot use a housing in which first and second two-dimensionally readable optoelectronic sensors are fixed), there is simply no factual basis for the Examiner's conclusion that it would be "an obvious matter of design choice" to make the *structural* changes necessary to go from the device of the Lysen Patent to that of the Hermann Patent Application while retaining the same basic function, let alone to do so going from the very different method and apparatus of My Patent to that of the Hermann Application.

6. All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

April 11, 2007



Roland Hölzl